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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,036	03/23/2004	Thomas Aisenbrey	INT03-008	2707

7590 07/21/2005

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EXAMINER

CHERVINSKY, BORIS LEO

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/807,036

Applicant(s)

AISENBREY, THOMAS

Examiner

Boris L. Chervinsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) 47-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 and 52-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims of Group I in the reply filed on 06/16/05 is acknowledged. The traversal is on the ground(s) that the process claims necessarily use the product and vice versa. This is not found persuasive because method steps such as resin injecting into a mold, extruding, plating and curing process are clearly pertain to the method and not necessarily to be searched for product claims.

The requirement is still deemed proper and is therefore made FINAL.

The restriction requirement for the invention of Group III is withdrawn.

### ***Claim Objections***

2. Claim 34 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 34. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5, 7, 9, 31, 32, 35, 41, 43 rejected under 35 U.S.C. 102(b) as being anticipated by Sono et al.

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Sono discloses an electrically powered electronic device 10 having a heat sink 12 including a bulk region with an attachment surface attached to a heat generating component and finned convection portion, the heat sink made of a resin based material comprising thermally conductive materials such as metallic or non metallic powder that may include gold, silver, aluminum or combination (see col. 3, lines 64-68 and col. 4, lines 1-5). Sono et al. also disclose the method steps of claims 41, 43.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 6, 8, 10-13, 36, 37, 39, 42, 44, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sono et al.

Sono discloses the claimed invention except fiber, graphite, specific content of resin and filler material and size of the particles. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use all these materials since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The graphite fiber, metallic fibers and particle fillers of various sizes and forms as fillers for thermally conductive devices are well known and described in numerous prior art references listed in US PTO 892 Form attached to this office action.

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7. Claims 14, 38, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sono et al. in view of Feinberg et al.

Sono discloses the claimed invention except a metal layer overlaying a part of the device. Feinberg discloses a heat sink having partially overlaid by metal layer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide metal layer as disclosed by Feinberg for the device disclosed by Sono for better heat dissipation and EMI shielding.

8. Claims 15-27, 29, 30, 33, 34, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sono et al. in view of Yamamoto et al.

Sono discloses the claimed invention as shown above except having the heat sink functioning as a heat pipe. Yamamoto discloses the heat sink configured as the heat pipe which inherently consisting of a wicking layer or grooved tube or wire mesh. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to configure the heat sink as the heat pipe as disclosed by Yamamoto for the device disclosed by Sono for optimized heat conduction.

9. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sono et al. in view of Yamamoto et al. and further in view of Feinberg et al.

Sono in view of Yamamoto discloses the claimed invention except a metal layer overlaying a part of the device. Feinberg discloses a heat sink having partially overlaid by metal layer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide metal layer as disclosed by Feinberg for the device disclosed by Sono for better heat dissipation and EMI shielding.

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10. Claims 52-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore in view of Sono et al.

Moore discloses a combined light and heat sink device comprising a light 20, first and second terminals 26 connected to the light and a heat sink 34.

Moore discloses the claimed invention except the resin based composite material. Sono discloses the heat sink made of the resin based composite material as it is discussed above. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use material as disclosed by Sono for the device disclosed by Moore for better heat dissipation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris L. Chervinsky whose telephone number is 571-272-2039. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2800 ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**BORIS CHERVINSKY**  
**PRIMARY EXAMINER**

*Boris H. Chervinsky*  
7/19/5